

# REMARKS

In the current application, claims 1-133 are pending. Of the pending claims, claim 133 is a new claim. No claims stand allowed.

Applicants respectfully point out that claims 129-132 are also pending claims in the current application, in addition to claims 1-128 as stated in the Office Action Summary.

Applicants have carefully considered the Office Action and the references made of record therein. In this response several amendments have been made to the specification, the drawings, and the claims. In view of the foregoing amendments and the following remarks, it is believed that the current application is now in condition for allowance.

Turning to the Office Action, the drawings were objected to because the reference characters 14, 15, 16, 17, 18, 19, 20, 21, 23, and 24 have been used to designate different items in the drawings. Claims 1-3, 6, 10-14, 16, 21, 24-27, 41-43, 50-54, 61, 64-67, 83, and 124-126 were rejected under 35USC 102(b) over Lemons et al (US patent 4,213,818). Claims 1-3, 5, 21, 22, and 37 were rejected under 35USC 102(e) over Bazylenko et al (US patent application publication 2002/0204821). The Office Action further rejected claims 15, 17-20, 37-40, 55-60, and 77-82 under 35USC 103 (a) in view of Lemons. Claims 122, 123, 127, and 128 were rejected under 35USC 103(a) in view of Bazylenko. However, the Examiner pointed out that claims 84-121 would be allowable is rewritten into independent form.

Applicants respectfully submit that the US patent application publication with the number 2002/0204821 and to Bazylenko was not found. Applicants therefore reasonably assume the publication number to be 2002/0104821.

In response to the objections to the drawings, applicants have amended drawing pages 1 of 9 (1/9) and 4 of 9 (4/9) to correct the error in reference numerals. Replacement sheets of these two drawings are submitted herewith.

As for the rejection of selected claims as unpatentable over the prior art of record, reconsideration and withdrawal of this rejection is requested in view of the amendments presented herein and the following remarks.

The amended claim 1 now expressly recites the features, among others, that the etchant comprises an interhalogen or a noble gas halide, and etching the silicon material at a rate of 25 um/hr or less. However, Lemons, the reference relied upon to reject claim 1, neither alone nor in combination with any other reference fails to teach or suggest the combination of the features in claim 1. In contrast, Lemons teaches a selective plasma vapor phase etching process. Lemons recites etchants such as silicon tetrafluoride (SiF<sub>4</sub>), carbon tetrafluoride (CF<sub>4</sub>), sulfur

hexafluoride (SF<sub>6</sub>), sulfur oxyfluoride (SO<sub>2</sub>F<sub>2</sub>), perfluoropropane (C<sub>3</sub>F<sub>8</sub>), and any of these gases mixed with oxygen, oxygen plus nitrogen, other oxidizing species, or other reducing species (column 5, line 35+). Lemons neither discloses nor suggests such etchants as interhalogen and noble gas halide as recited in claim 1. Therefore, claim 1 is patentable over Lemons.

Likewise, claim 41 as amended expressly recites among other things, that the etchant comprises an interhalogen or a noble gas halide, and etching the silicon material at a rate of 20 um/hr or less. These features as mentioned above are neither disclosed nor suggested by Lemons, either alone or in combination with any other references. Therefore, claim 41 is allowable over Lemons.

Since claims 2-40 are dependent claim from claim 1, and claims 42-122 are dependent claims from claim 41, they are allowable for at least the same reason as claims 1 and 41.

The Office Action further rejected claim 1 as being anticipated by Bazylenko. The following remark is made based upon applicants' assumption that the Bazylenko reference cited by the Examiner is an US patent application having the publication number 2002/0104821.

The amended claim 1 now expressly recites the features among other things that the etchant comprises an interhalogen or a noble gas halide, and etching the silicon material at a rate of 25 um/hr or less. Bazylenko, however, neither teaches nor suggests, either alone or in combination with any other references, the combination of the limitations in claim 1. In contrast, Bazylenko discloses a method for etching using an etching gas mixture of CHF<sub>3</sub>/AR. Bazylenko neither teaches nor suggests such etchants as interhalogens or noble gas halides as recited in claim 1. Therefore, claim 1 is patentable over Bazylenko.

Since claims 42-121 are dependent claim from claim 41, they are allowable over Bazylenko for at least the same reason as claim 41.

With regard to the Examiner's rejection of the independent claim 122 under 35USC 103(a) over Bazylenko, reconsideration of claim 122 as amended and withdrawal of the rejection are respectfully requested for at least the same reason applied for claim 1.

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. In the event any fees are required in connection with this paper, please charge our Deposit Account No. 501516.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Gregory R. Muir", is written over a horizontal line.

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